

### **REMARKS**

Claims 1-5, 7-15, 18, 19 and 21-24 remain pending in this application. Further reconsideration of this application is requested.

#### **Drawing Objection**

As required by the outstanding Office action, the photodetector and surface treatment of claim 11 is shown in Fig. 2(b) on the attached Replacement Sheet. No new matter is entered as Fig. 2(b) conforms to the specification at pages 10-11. Withdrawal of this ground of objection is requested.

#### **35 U.S.C. 112 Rejection**

The rejection of claims 11-15, 18 and 23-25 under the first paragraph of 35 U.S.C. 112 is traversed. The Office action states that the specification does not describe a gamma camera in which a photodetector is attached at one end of the bar detector, nor one in which a "light collection optimizing surface treatment" is applied to the other end.

In response, reference is made to the specification at page 10, wherein it is disclosed that "an alternative embodiment of the rotating bar detector would collect light at only one end of the bar, with an optimal surface treatment at the other end of the bar, such as a reflector, a diffuse surface treatment, or other surface treatment that optimizes light collection by the photodetector." Accordingly, the statement in the Office action is incorrect. Withdrawal of this ground of rejection is requested.

#### **35 U.S.C. 103 Rejections**

The grounds of rejection of record are traversed as applied to the claims as amended, and also for reasons of record as explained in prior amendments.

Claims 1 and 19 require each bar detector strip having a width dimension adapted to face a source of gamma photons, and a depth dimension orthogonal to said width dimension, wherein said width dimension is smaller than said depth dimension. This feature is described in the application as published at paragraph 0023 (corresponding to paragraph bridging pages 7 and 8 of the specification).

As explained, because the slit collimators collimate gamma photons in only one dimension, high position resolution is required only in the dimension perpendicular to the collimated bars. Thus, a narrow width bar may be used. See paragraphs 0024, 0026 of the published application (corresponding to first full paragraph, page 8, and first full paragraph, page 9 of the specification).

In contrast, Zeng fails to teach the use of bar detector strips with the claimed dimensions. Fig. 4 shows detector elements 106 with width dimension  $C_x$  and depth dimension  $C_z$ . Zeng is silent as to the dimensional values (see col. 7:26-28), however  $C_x$  and  $C_z$  appear in Fig. 4 to be equal. Further, the embodiment shown in Fig. 8 discloses detector elements 106 having a width dimension that is greater than a depth dimension.

The outstanding Office action relies on the scintillation crystal 86 disclosed in Miraldi. However, the specific geometry of scintillation crystal 86 is chosen by Miraldi for use with the specific focusing collimator 88 as shown in Fig. 7 of Miraldi. See col. 7:6-18. Such configuration has no apparent relationship to the Zeng collimator configuration; consequently it is not apparent that one of ordinary skill in the art would have been motivated to modify the Zeng crystal geometry to that as shown in Miraldi. Withdrawal of this ground of rejection is requested.

Claim 11 has been amended to require that only one photodetector be attached to one end of a bar detector strip normal to an elongated dimension, and a light collection optimizing surface treatment applied to the other end of the bar detector strip normal to said elongated dimension, which surface treatment optimizes light collection by said one photodetector. Neither Zeng nor Miraldi teach or suggest this feature. Neither does the outstanding Office action provide any evidence or basis for the conclusion that such feature would have been obvious. As such the rejection is improper on its face and should be withdrawn.

The "official notice" that "a detector at one end of [a bar of scintillator material] with a treatment" at the other end is known in the art, is traversed. Applicant is aware of no evidence that the features as set forth in claim 11 were well-known in the art at the time the invention was made. The Examiner is requested to produce evidence supporting this assertion. MPEP 2144.03 provides that "it would not be appropriate for the


examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art,” citing *In re Ahlert*, 424 F.2d 1088, 165 USPQ 418 (CCPA 1970). Applicant is not required to demonstrate that the noticed “fact” is not common knowledge or well-known in the art. The Office cannot shift its burden with respect to making findings regarding patentability by simply taking “official notice” and requiring applicants to demonstrate why the “official notice” is erroneous.

Additionally, for the record the outstanding grounds of rejection remain traversed. Although the Office action states that the specific arrangement in Zeng of the optical communication of the photodetector to the scintillation detectors 106 is left “as a choice within the ordinary skill the art,” those skilled in the art reading Zeng would understand that the photodetectors must be located in the detector head 22, which is below the scintillation detectors 106. This conclusion is supported by the explanation in Zeng that the back edge 107b of the slats 102 is proximal the radiation receiving face 23 of the detector head 22. See Col. 7:16-18; Col. 10:22-23; Figs. 4, 5A, 5B and 8. Because the radiation receiving face 23 receives radiation from the scintillation detectors 106, a photodetector by definition would be located at the radiation receiving face 23. For this reason, while Zeng does not illustrate photodetectors, those skilled in the art would have understood from the disclosure that Zeng teaches such photodetectors are mounted in the detector head 22, so as to receive radiation at the radiation receiving face 23, which is below the collimator and not adjacent to the collimator.

**Conclusion**

In view of the foregoing, further reconsideration of this application, withdrawal of the outstanding grounds of rejection, and the issuance of a Notice of Allowance is requested.

Please charge any fee or credit any overpayment pursuant to 37 CFR 1.16 or 1.17 to Novak Druce Deposit Account No. 14-1437.

RESPECTFULLY SUBMITTED,					
NAME AND REG. NUMBER	Vincent M. DeLuca Attorney for Applicants Registration No. 32,408				
SIGNATURE				DATE	18 July 2008
Address	Novak, Druce, DeLuca + Quigg LLP 1300 I Street, N.W., Suite 1000 West Tower				
City	Washington	State	D.C.	Zip Code	20005
Country	U.S.A.	Telephone	202-659-0100	Fax	202-659-0105